



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,686	02/27/2004	Youichi Tamura	NEC 04P036	9355
27667	7590	08/31/2004	EXAMINER	
HAYES, SOLOWAY P.C. 130 W. CUSHING STREET TUCSON, AZ 85701			KOVAL, MELISSA J	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/789,686	Applicant(s) TAMURA ET AL.	
	Examiner Melissa J Koval	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/27/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to because Figure 3 shows element 5 labeled as an "optional zoom mechanism". In the specification, on the final line of page 6, element 5 is described as an "optical zoom mechanism". The word "optical" makes more sense and Figure 3 should be corrected. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawashima et al. ('228 B1).

Refer to Figures 5, 8, 14 and 17 of '228 B1, for example.

Claim 1 sets forth: "A projector comprising (projector 100):

a projection optical system for projecting an image onto a projection surface (See column 7, lines 10 through 12.);

optical zoom means for actuating said projection optical system to enlarge and reduce the image projected onto said projection surface (See projection lens system 100C comprising zoom driving unit 22. Also refer to column 8, lines 18 through 33.);

distortion correcting means for correcting a distorted quadrilateral image which is projected onto said projection surface when an optical axis of said projection optical system is oblique to said projection surface in vertical and horizontal directions, into a square corrected image (See microcomputer 5 and column 7, lines 29 through 55. Refer to Figures 16 and 17. The examiner interprets the phrase "rectangular region" used by

Art Unit: 2851

Kawashima et al. to be inclusive of a square region. Test pattern 16 is shown to be square. See column 15, lines 64 through 67, and column 16, lines 1 through 34.);

zoom setting detecting means for detecting a zoom setting of said optical zoom means (See vertical axis displacement unit 19 and horizontal displacement axis unit 20. Refer to column 12, lines 55 through 61. Also see column 9, lines 6 through 57.); and

corrective data generating means for generating corrective data to be set in said distortion correcting means based on the zoom setting detected by said zoom setting detecting means (See remote controller 1, test pattern generating circuit 12, and OSD generating circuit 11 as they perform tasks with microcomputer 5. See column 16, lines 36 through 67, and column 17, lines 1 through 47).” Also see the steps for rough and fine adjustments shown in Figures 8 and 14.

With respect to claims 2 and 3, refer to Figure 6.

Claim 2 sets forth: “The projector according to claim 1, wherein said zoom setting detecting means comprises:

a detecting gear rotatable in ganged relation to said projection optical system which is actuated by said optical zoom means(See column 9 lines 7 through 13); and

a detecting element for detecting an angular displacement of said detecting gear (See column 9, lines 31 through 40).”

Claim 3 sets forth: “The projector according to claim 2, wherein said optical zoom means comprises:

a ring gear (zoom driving gear wheel 175) mounted on an outer circumferential surface of a projection lens of said projection optical system, said detecting gear (pinion 261) being in mesh with said ring gear.”

With respect to claims 4 and 5, refer to Figures 7, 8, 14, 16, 17, 18 and 21, for example.

Claim 4 sets forth: “The projector according to claim 1, wherein said distortion correcting means corrects said projected image such that one of vertexes located on the opposite ends of one of the two diagonal lines of the square corrected image is positioned on a side of the outer edge of a projected 5 range of the projected image, and the other one of the vertexes is positioned on a side adjacent to said side.” See column 17, lines 8 through 17. See pattern images 153 and 157, for example.

Claim 5 sets forth: “The projector according to claim 1, wherein said distortion correcting means corrects said projected image by correcting two sides of the projected image in the vertical direction based on a vertically inclined angle of said optical axis with respect to said projection surface, fixing one 5 of the two corrected sides, and manually moving (using remote control 1) the remaining three sides of the projected image with respect to the fixed side within the projected range of said projected image.” See column 16, lines 36 through 67, and column 17, lines 1 through 7.

Method claim 6 is rejected for the same reasons already applied to rejected claim 1.

Art Unit: 2851

Method claim 7 is rejected for the same reasons already applied to rejected claim 4.

Method claim 8 is rejected for the same reasons already applied to rejected claim 5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Muramatsu U.S. Patent Application Publication US 2004/0046943 A1 teaches a projection type display apparatus.

Nishida et al. U.S. Patent 6,652,104 B2 teaches a correction image of distortion.

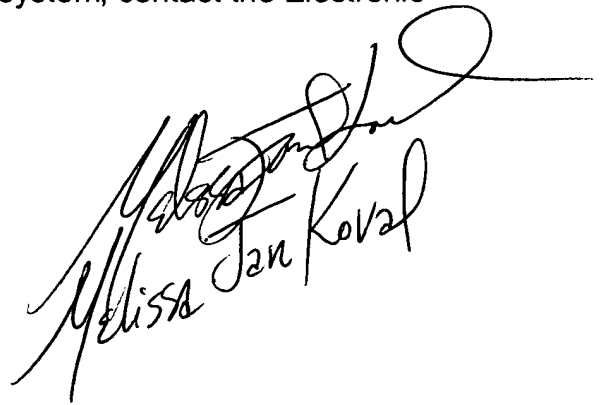
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJK

A handwritten signature in black ink, appearing to read "Melissa Jan Koval". The signature is written in a cursive, flowing style with a large loop at the end.